A MATTER
OF DESIGN

MAKING SOCIETY THROUGH SCIENCE AND TECHNOLOGY

PROCEEDINGS OF THE 5TH STS ITALIA CONFERENCE 2014

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STS italia

A Matter of Design: Making Society trough Science and Technology
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EDITORS' INTRODUCTION

An 'Epistemic' Encounter
between STS and Design

The present publication contains a selection of the works presented at the 5th STS Italia Conference, held in Milan from June, 12–14 2014. The main theme of this STS Italia conference's edition was the intersection between Design Studies and Science & Technology Studies. The Conference was the main event of STS Italia, the Italian Society for the Study of Science & Technology and the 2014 edition was organized in collaboration with the Design Department of Politecnico di Milano. Thanks to this cooperation, the conference was a unique space for interdisciplinary encounters between different scientific and intellectual milieus, which have interacted on very practical terms, fostering a reflexive account both in Design and STS practices.

In the last thirty years, the word 'design' along with all the practices that compose this word have become more relevant and ubiquitous in our societies. Today, design is often linked to new technological developments and at the same time is conceived as a practice that gives meaning to artefacts, services and experiences defining our everyday life. Thus, from being just 'styling', design has become, in our artefacts-dense world, the main practice related to the articulation of social relations through artefacts; indeed, it is through the very act of articulating artefacts' forms and meanings that design shapes our social networks – either those brought about by artefacts or those that make artefacts possible.

Because design is part of a complex network, it cannot be explained as the result of independent rational choices carried out by isolated individuals, whether designers, producers or users. Rather, design processes are the outcome of collective processes in which humans and nonhumans interact. For these very reasons, design has become of interest for Science and Technology Studies, which have been assessing these networks of humans and non-humans, giving way to innovation for the last 40 years.

Whether the reciprocal interest between these two fields is recent, as shown by many publications (among others: Binder, 2011; Fallan, 2010;

Farias and Bender, 2011; Houdart, 2006; Ingram et al., 2007; Latour, 2008; Latour and Yaneva, 2008; Shove et al., 2007; Storni, 2012; Suchman, 1987; Wilkie, 2011; Woodhouse and Patton, 2004; Yaneva, 2009a; 2009b), the overlap between issues of interests for these two fields emerged in the more distant past with the development of IT, as witnessed by the well-known Italian designer Ettore Sottsass, who in the 1960s collaborated with the Italian computer manufacturer Olivetti on the Elea, one of the first microcomputers:

> It was immediately obvious in the first years in which I worked on the ELEA that in the design of certain gigantic instruments, as electronic machines were then, or in the design of groups of machines which have a logical and operational relationship between each other, one ends up immediately designing the working environment; that is, one ends up conditioning the man who is working, not only his direct physical relationship with the instrument, but also his very much larger and more penetrating relationship with the whole act of work and the complex mechanisms of physical culture and psychic actions and reactions with the environment in which he works, the conditionings, the liberty, the destruction, exhaustion and death. (Ettore Sottsass quoted in P. Sparke, *Ettore Sottsass Jnr*. London: Design Council. 1982, p. 63.)

Although such an encounter could seem obvious since it literally follows the order of things, it has not been simple or straightforward, nor can it be taken for granted, in general and especially at the STS Italia Conference. As it has been also noted by Paolo Volonté (2014) in presenting the conference keynote lectures – which have been published on a special issue of the journal 'Tecnoscienza' – we witnessed, indeed, to a meeting between two 'epistemic cultures', i.e. two 'sets of practices, arrangements and mechanisms bound together by necessity, affinity and historical coincidence which, in a given area of professional expertise, make up how we know what we know', as clarified by Knorr-Cetina (2007, p. 363); or between two 'epistemic communities' (Haas, 1992; Akrich, 2010), each sharing policy orientations on problems at stake and a technoscientific repertoire for possible ways of solving them. In other terms, they represent different 'machineries of knowledge construction' (Knorr-Cetina 1999, p. 3). What occurred at the STS Italia conference was encounters between different practices, artefacts, references, values and ways of judging what is relevant

and what is not, what can be taken for granted and what has to be made explicit and must be justified and grounded, what is reliable and what is not.

Such an epistemic encounter has occurred – as the many thematic sessions of the conference showed – in studying the more diverse subjects: from communication tools to innovation processes, from robotics to smart fibres, from workplaces to medical products or even the human body. These proceedings bear the traces of all these differences and the slow negotiations over them. In this sense, these proceedings can be considered as an on-going preparation for a dialogue (or a clash) where each party places its troops and studies the other, rather than dwelling on its ending accomplishment.

The published papers reflect the heterogeneity of the conference in terms of the specific themes considered, the theoretical frameworks adopted and the epistemic perspectives owned by the different authors. The six sections of this volume reflect the conference structure, and together they draw a variegated picture of the topics and perspectives in the encounters between two different 'epistemic cultures'. Section 1 (Design, Social Innovation and Cultural Identities) reveals how recently design has been seen as an instrument to create and sustain social change and innovation stemming from local communities. The papers in this section present case studies on social design and discuss its role in the creation of both culture and (urban or local) identities. Section 2 faces the challenges raised by the Digital Media and Knowledge Society. The rise of the knowledge society has several implications in terms of, for instance, the epistemological consequences of the availability of a large amount of data and the social consequences of ubiquitous wireless networking. The papers in this section analyse such implications from different disciplinary points of view. Section 3—Design, Creativity and Processes—addresses the analysis of design practices and creativity processes. The papers explore practices and processes through which new artefacts and services emerge, become stabilized and acquire a specific identity. The emphasis is on the entanglement of human and non-human elements (material, symbolic, sensorial, imaginative) involved in these processes. Aesthetics is a key issue in design, traditionally linked to the physical and static aspects of a product. Section 4 (Aesthetics, Narration and Critical Design) points out that nowadays the 'aesthetic' appraisal of products and services can take into account different aspects, linked to the temporal and expressive aspects of interactive behaviours, or to the sustainability of the manufacturing process.

This adds both a narrative and a critical dimension to aesthetics. The spread of new manufacturing possibilities (i.e. rapid prototyping tools) is causing a socio-technical paradigm shift taking place in the processes of materialization and production of goods and services. Section 5, titled New and Responsible Socio-Technical Paradigms, deals with this changing scenario, where the relevance of sustainability and ethics in industry is increasing. At the same time, there is a growing call for responsibility in research and innovation activities. Finally, the last section (Health, Safety and Wellbeing) deals with the STS analysis of design issues related to healthcare, mobility, housing and work that affect the way services and welfare take place. The emphasis is especially on the hybrid and collective dimension of values, technological infrastructures and practices that re-create social relations, communities and everyday life.

The published papers are a selection of the full papers submitted to the Conference. These were already a selection of all the works (244 in total) presented to the various tracks of the conference since many, by author choice, remained just abstracts (available as documentation on the conference's website). The selection of the abstracts for the conference was managed by the track convenors, while reviewing and the subsequent selection of the full papers for publication in the present Proceedings has been managed by the editorial committee. Each paper has been reviewed by the editorial team and has been accepted on a few porous selection criteria related to the desire to include different points of views and voices, regardless of the main perspective adopted and the main disciplines of origin. As a result, this publication contains 86 reviewed papers representing a variegated and multi-perspective output of this encounter among scholars coming from different fields and sectors but bound together by a special sensitivity toward design processes and practices, materials, technologies and the social and cultural issues imbricated into and through these elements.

Given the huge work done and the several steps that brought to this book, we need to thank several people that have directly and indirectly contributed to the final outcome. First of all, we want to thank STS Italia Board's members Paolo Volonté, Manuela Perrotta, together with the members of the conference's scientific committee: Paolo Ciuccarelli, Stefano Maffei, Giuseppina Pellegrino and Francesco Trabucco, for their contribution in the design of the overall programme of the conference.

Lastly we have to highlight that this is the first volume released directly by STS Italia, under the label STS Italia Publishing, with the aim of extending the scientific activities of the Society. The choice has been to publish the papers with an open access policy, both to help the visibility of these works and also to experiment alternative ways in scientific publishing and therefore in what we can define our 'epistemic machineries'.

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